

SVKM's
D. J. Sanghvi College of Engineering

Program: B.Tech in Chemical Engineering

Academic Year: 2022

Duration: 3 hours

Date: 14.01.2023

Time: 10:30 am to 01:30 pm

Subject: Sustainable technologies (Semester V)

Marks: 75

Instructions: Candidates should read carefully the instructions printed on the question paper and on the cover page of the Answer Book, which is provided for their use.

- (1) This question paper contains two pages.
- (2) **All Questions are Compulsory.**
- (3) All questions carry equal marks.
- (4) **Answer to each new question is to be started on a fresh page.**
- (5) **Figures in the brackets on the right indicate full marks.**
- (6) **Assume suitable data wherever required, but justify it.**
- (7) Draw the neat labelled diagrams, wherever necessary.

Question No.		Max. Marks
Q1 (a)	What is Corporate Social responsibility. OR What are main areas in which Green Economy should focus on.	[05] [05]
Q1 (b)	What is Sustainable development. Explain the social, environmental and economical aspects of sustainable development.	[10]
Q2 (a)	Mention the CERES Principles for greening Corporations. OR What are carbon credits. Explain voluntary and compliance carbon credits.	[10] [10]
Q2 (b)	What is nuclear waste and why is it a problem.	[05]
Q3 (a)	What are Green Buildings. OR What do understand by biofuels.	[05] [05]
Q3 (b)	What is Life Cycle Analysis. Describe the steps of performing Life Cycle Analysis.	[10]
Q4 (a)	Describe salient features of Sustainable cities. OR What is Environment Impact Assessment (EIA). What are the objectives of performing EIA.	[10] [10]

Q4 (b)	What do you understand by ecological footprint. Why is it increasing.	[05]
Q5 (a)	Explain any two. i. Geothermal Energy ii. Fuel Cells iii. Green Chemistry iv. Clean Development Mechanisms	[05] [05] [05] [05]
Q5 (b)	What is circular economy.	[05]

